

Rutgers University
Rutgers-Newark Partnership

Overall goals of the partnership between Rutgers University and the Newark Public Schools include the following:

- To provide teachers with the opportunity to learn and understand mathematics ideas, and develop an understanding of the ways in which students learn those ideas.
- To provide teachers with the opportunity to acquire the knowledge and ability to create classroom environments where students can build concepts and skills as they engage in meaningful, compelling, and challenging problem-solving explorations.
- To help teachers to become more comfortable with new materials, curricula, and teaching strategies that exploit new technologies.
- To help parents gain knowledge and appreciation for the new standards-based mathematics that their children are experiencing so that they can help and support them.
- To help students gain knowledge and skills as they work on complex, problem solving activities.
- To expand the numbers of students who are mathematically literate, confident and able to succeed in mathematically challenging courses.

PROJECT SUMMARY

One aspect of the collaborative work that exists between Rutgers University and the Newark schools is the K-8 Newark Public Schools Systemic Initiative In Mathematics (NPSSIM)¹ which is an ambitious five-year plan to achieve comprehensive reform in mathematics and to ensure institutionalization thereafter. The goals are being accomplished through a multi-faceted program that has at its core an informed cadre of instructional leaders at all levels within the school district, who will support the implementation of the adopted standards-based curricula, standards-based instruction, and assessment.

Key elements of the project include:

- Professional development for an existing cadre of mathematics resource teachers (MRT) to deepen their own understanding of: the content, the ways in which children build ideas relating to the content, new curricular and technological resources, assessments, pedagogical practices and ways to support teachers as they implement the new materials and practices.
- Professional development for elementary and middle grade teachers so that they can learn how to use the standards-based materials with integrity. This professional development will focus on more than just helping teachers to learn about the materials—it will also provide opportunities for the teachers to deepen their own understanding of the mathematical content, learn about how children develop ideas about the content, and, consider the implications for instruction.
- Professional development for administrators so that they can be informed about the program, support teachers, and develop a deeper understanding of the content, curriculum, assessments, and pedagogical practices that will be needed for successful implementation.
- Parental outreach so that parents can understand and support the changes that will take place when standards-based approaches and materials are used. This component of the plan will allow parents (and other caretakers) to raise questions and issues, discuss program goals, and learn about strategies for helping their children.
- Intensive collaboration with higher education partners and other community agencies to address in-service needs at various instructional levels within the district (i.e. school-based administrators, mathematics resource teachers, whole school reform mathematics facilitators, whole school reform coaches, classroom teachers, and parents).
- The development of After-School Centers which will serve as “laboratories” for collaboration between University partners, prospective teachers, graduate students, teachers, MRT’s, administrators, students, and parents
- Using data and feedback as a way to inform the project so that constant improvement can take place.

¹ The full partnership is funded by the NSF and includes Rutgers University, the Newark Public School District, and Montclair State University.